

INTERVIEW WITH WILLIAM MULHOLLAND

February 21, 1977

Conducted by:

Dr. James L. Dodson

---and---

Miss Paula Boyer

Dodson: I wonder if you will give us your full name and tell us where you were born Mr. Mulholland.

Mulholland: My name is William Mulholland and I was born in Los Angeles, on the banks of the Los Angeles river along about where Glendale boulevard crosses the valley.

Dodson: You're one of our native sons then.

Mulholland: That's right.

Dodson: Now, we were very much interested in knowing your relationship to the engineer who brought in water to the valley. Can you tell us about that?

Mulholland: Yes, he was my father's brother and he and my father landed on the isthmus of Panama on the Atlantic side off of a boat which belonged to the English navy. And uh they walked across the Panama Canal and uh one instance that happened there I think is pretty interesting. My uncle was a very gruff person and very forceful. As he, as they were going across the canal area there, the Panama canal area of course, but uh, some insect laid eggs in my uncles big toe. [laughter] And uh, it kept swelling and swelling and so my uncle got his knife out and put his foot up on a rock and handed the knife to my father, my father had what you might say an obstenant nature, handed it to him and said, "cut it open." Course my father was very reluctant about it but he did it. He did it. He cut it. The eggs came right out of the cut

that he made there. So that's the way that they came to this country.

Dodson: Crossing that isthmus of Panama at that time was a pretty risky procedure with all of the mosquitoes and that sort of thing.

Mulholland: There's no question about it. That was really roughing it in those days.

Dodson: Can you tell us what caused them to want to come to California to begin with?

Mulholland: Well, they, they, before they ever settled in California they were up in Canada and around the Pittsburgh area and in Arizona and up in Washington and finally they settled here. And immediately, I guess, my uncle started to study uh, my uncle was a navigator when he was only a young man.

Dodson: He was a, what did you say?

Mulholland: He was a navigator. He had his papers.

Dodson: Oh, yes.

Mulholland: Uh, he was a very much of a student. My father said it wasn't easy for him to learn either which is probably true of a lot of people that go along ways. When it comes easy you don't get so far. And then, I remember a couple a, when I was living in the park there were, where I was raised, Elusian park, why I remember a couple of older men I overheard their conversation and my uncle was in the neighborhood and they went up and pointed my uncle

my uncle out to the other one and said "you watch that young man. He's goin someplace."  
[laughter] Oh, it was recognized that he had ability by older people in that park.

Dodson: Did he get a job with the Water Department as soon as he got here?

Mulholland: No. He worked, uh, for the Water company, which was a private, see the city bought the Water Department from a man by the name of Perry.[ sp ?] This man Perry liked my uncle quite well, he was an older man, and so uh, that's why my cousins name, one of the uh names was Francis [Frances ? ] Perry, named after this man and so when the city bought this water company from this company, why then my uncle became the superintendant, or whatever the title was, and that's how he got really started you know with the Water Department. At that time the Water department, of course, was very small. In those early days you know they used to run water on what they call "sankets." Did you ever hear of that name?

Dodson: No. Maybe you'd better explain that to us.

Mulholland: A sankee [sanket ? ] is a ditch. It's a spanish name and the people who were in charge of sankee's were sankeroes. [sp?] And uh, the, in the early days alot of water that we used came from the river and it went to whatever ranches we had through these sankees. There was a sankee, they were irrigation ditches, and when they got into town they were more than irrigation ditches because the water from this river, we took the water out of the river along about Elusian Park there and it went into one of these sankee's and this sankee was there for years and



years and it went down to Los Angeles along the, do you remember the railroad went out North Broadway?

Dodson: Yes.

Mulholland: Off to the, if you're going south, off to the left is the railroad and it's down lower than the roadway. Along that bluff there, was this sankee and it was an open ditch and for years there that's how the city got its water. That old sankee was working, the Gas company got water that way. See, they used water to uh, to uh, cool their, when they were making gas they had to have a cooling system so they used water. My father used to turn, they had a contract with the city, my father used to turn the water on in the evening when it started their mill going down there and then put it down in the sankee. He did that for years and years until they realized, nobody realized that that old ditch was still there.

Dodson: The water in the sankee was used for industrial purposes then?

Mulholland: Yes. As far as I know it could have been used for some ranches down in that area too. In Los Angeles at that time there were, [inaudible] was a ranch and it could have been used for [meaning the water] I don't remember wheather they ever pumped it, and used it, or put it into a main or not, I know they used it, the gas company, they were the greatest users of it. One interesting thing that always interested me was at Elusian park they sunk a shaft and uh went down and then from the shaft went below the bedrock and below the bedrock there's a tunnel that goes from the shaft that goes from Elusian park over towards the mouth of the Arroyo Seko [sp] where the Arroyo Seko enters the Los Angeles river where that fork is

over around Dayton street. That, then they put wells, I call them upside down wells, see they put the wells down to the river, through the river material and then they went into the top of the tunnel so the water would flow down into these wells and in through the top of the tunnel and up through the shaft. I thought that was an interesting feature. In the old days it was just like it is today, they had to use their heads and

Dodson: [interjects] Maybe they had to use them more since they had less machinery to work for them.

Mulholland: Well, uh, well that's right but the uh, in fact as you say, it was more important for them to use them, in a sense. We built the whole Aquaduct with mules. We didn't have, the railroad finally put in a branch line up along where the Aquaduct is where and used that but mules, that's where we had plenty of mules. We bought mules by the hundreds. Oh, they were beautiful animals, nice young stock from Missouri.

Boyer: Oh, all the way from Missouri huh?

Mulholland: And uh,

Dodson: Do you have any idea how many were used on that project?

Mulholland: Oh, there must have been thousands cause we hauled them, uh everything by mule. The railroad, even those great big siphons you see between here and Owens mount, Owens river, those big sections of pipe, loaded all by mules. And uh, all the cement that was in it was hauled by mules.

Dodson: This was before the day when there were enough trucks available for that sort of thing so all you, No trucks had been built yet?

Mulholland: No. The water department owned two automobiles. One of them was the uh operated by the mechanical engineer, who in those days a mechanical engineer was a machinist. A machinist is an engineer too but and he had a white steamer and my uncle had a Franklin. The Franklin was a very good car for that purpose. The Franklin was an air cooled engine and they went where there were no roads.

Dodson: Can you tell us how your uncle first became interested in the project to bring water from the Owens valley?

Mulholland: Well, that came about through a former Mayor.

Dodson: I think his name was Eaton, wasn't it?

Mulholland: Yeah. He was the one that thought up the whole idea and he was the one that went up a signed up alot of those people so that we could get uh, buy the land. The uh, my uncle went along with him and he took my uncle and they went up there and took a look at the whole project. He was also an engineer. It was his original idea and my uncle had a, always felt like my uncle could see what was underneath. He visualized cause he was such a good geologist. He visualized everything that was underneath in the way of mountains, I mean hills, and the ups and downs of the. Well, I remember one time when Van Owen, Van Owen was my uncle's right hand man, when he built the Aquaduct

and uh, he became city engineer for a little while and when he was city engineer we had a big outfall of sewer to be built and my uncle was uh, he looked the thing over and he told Van Owen that they were putting it in the wrong place. He went over the map and showed him which way it should go and Van Owen got credit for saving the city five million dollars on that project.

Dodson: It was really your uncle's idea. That was the Van Norman that the Van Norman dam is named for?

Mulholland: Yes. He was a very, very good man for my uncle. My uncle hired big men mostly. In stature. That was his philosophy. Maybe that is what you had to do in those days. I guess the boss, in those days I guess the workin man was a pretty rough person. I guess you had to have a person that uh was uh impressive anyway in, cause I remember one called "Big John" and another one [name inaudible] he was the most handsome spanish man I'd ever saw. He had this moving picture type physique. My uncle for the most part, but the mechanical engineer was a little man. And at that time, when we started it, my uncle had some [inaudible] and uh, that was partly because he could instinctively tell whether he could or couldn't use a man.

Dodson: He was good at sizing them up?

Mulholland: Oh yes! He was very good and he worked some of em pretty hard. At least they worked pretty hard under him. Some of his top people, the man who was in charge of nearly laying out all the main in the city, name was Brooks, he was considered along with my uncle at the time as being capable of doing what my uncle had to do. Now, that man

I know for, he never took a vacation. And he was the first man down on the job every morning. He knew every valve in this city.

Boyer: Were you out at the site during the working of the Van Owen water coming in?

Mulholland: Was I on the?

Boyer: Yeah, were you on the job, or were you uh?

Mulholland: Yes, I was uh, I was uh I guess about nineteen or so. Uh, I went to work on the aquaduct. I worked in the cement mill. The aquaduct itself was a pretty rough place. Uh, that is, you were out on that desert and you lived in a tent if you had a place to live. I remember one fella said he used to live in a wheelbarrow. He slept in a wheelbarrow. It could be true. So, when my uncle, I asked my uncle for a job and he sent me off to the cement mill. It's in Monolith. Do you know where Monolith is?

Dodson: I've heard the name. I don't know just where it is.

Mulholland: It's just before you get to Tehatchepie [sp?] there's a cement mill there and that's another thing my uncle did when he built the aquaduct, he, because of the cement crust, my uncle insisted that we build our own cement mill.

Dodson: That probably saved the city quite a bit of money.

Mulholland: Oh yes! My uncle wouldn't take the job unless he

could be in full charge and that's one of the, he delt with some very peculiarly, in those days a socialist was about thought what an anarchist would be considered today, in the same class. That is the teaching of the anti-union people were so strongly, and in Los Angeles was terrible against unions. The, and even in those days, all my uncle had to say was, and he would stand up to those people in business. One of the big Iron companies, a workin man was just like an animal. A dollar a day was all he was worth. That was their real belief but my uncle was opposite to that, you might say. He believed a man was worthy of his ire and that's, he did all the things because, for these people who were thinking opposite to the way he was thinking but he was so powerful and they needed him so badly that they had to do what he said. And that, that was one of the things I remember one of the men in charge of one of the parts of the city, of the plan. He was talkin to my uncle and he said, he was complaining about the fellas who were working for him. They were diggin ditches, you know, pick and shovel work and in hard rock and whatever happened. And uh, this man was talking about, this man was Tom Brooks, and uh he told my uncle about the fact that these people were getting old, you had to get some young bodies to take their place and my uncle says, "Well Tom, they got old working for you." [laughter.] That settled that.

Dodson: Could you tell us what a typical days work working on the aquaduct would be like for the men who were doing the pick and shovel work? What time would they start working and so on?

Mulholland: The aquaduct was not so much pick and shovel work there, well there was too but uh, it was an eight hour day. Six days a week. The only trouble they had was on the aquaduct was feeding the people. See we had no refrigerators in those days and uh it was awful hard to keep food so we did, and we did pretty good. And one of the things that was bad, a man by the name of Desmond, one of the brothers of the man who ran the Desmond dry goods store here, he was one of the brothers. The other brother was in Yosemite I think it was, had charge of that, feeding people and what have you, he was a business man. But this one he got a contract with the city to feed the people on the aquaduct and not being too much of a business man I guess, course it would be a pretty hard thing for anybody to do, and they had to keep the price down. He got indebted to quite a few of the merchants, or wholesalers in Los Angeles and uh he, they had a habit of making him take some of the goods that they couldn't get rid of any other way and some of that went out on the aquaduct. Well he had to do the best he could and some of that we had to eat but for the most part the men were well fed there was nothing as to quantity there was no question about quantity and there was plenty of meat. Meat of course to a working man it was meat and potatoes that was a meal to most working people, you know. They uh, another thing about a camp cook, a camp cook invariably was an alcoholic. They worked so long and then between times before you could get a good one you had to take what you could get. That was one of the reasons we had a little trouble on the aquaduct. It was feeding the men. It wasn't because

they were stingy or anything. It was because of a lack of ability. The people who worked on the aquaduct were floaters. A floater was a person who comes along, on the desert what they did out there was they carried their own blanket. You furnished them a straw mattress or covering, a house or tent. But they carried their own blanket. They would come along and go to an outdoor camp and get a job and they had some good men out there, good mechanics. Some of those, you know in those days the workin man, many of the workin men, uh only worked long enough to get enough money to go to town and have a spree. It's uh, one of the sad things about it was all that millions of dollars that was spent, so much of it went to wages went to some Irish bar people. [laugh] Cause they took it away from us as fast as we could come to town. WE had, one of the things we had out there, we had what was called "short stakers" and "long stakers." That meant, a stake was how long you worked for a stake. The short stakers might be considered ahead of the game a little bit because all that any of them got, that were in that class was one drunk. That's all they got out of it. So if they went to town with five dollars, that would suffice. But if they went to town with fifty dollars they'd still end up with that one drunk because somebody would roll em.

Dodson: What did the "short stake" and the "long stake" mean?

Mulholland: The lenth of time, the amount of money they saved before they quit the job and went to town.



Dodson: I see. You had a big turnover of labor then?

Mulholland: Oh, yeah. A big turnover of labor and uh, I remember there was uh, one fella I heard of there that used to work for three years on a job before he went, and he wasn't one of those kind. You know what he did? He'd go to a good hotel and buy himself a lot of good clothes. He'd go to a good hotel, not a high class one but a good one, and live the life of "Riley." He wasn't a drinker but he just went there with as much as a three year. SAve up as much as three years and live like a king. It's odd.

Dodson: Did you have any type of labor troubles that you remember on the job?

Mulholland: Uh. No, not that I know of. We had uh, when the mill. The mill had to be operated by experienced people so we got fellas from other mills. The men were all skilled people. The laborer in that area where we had the mill we had Mexican laborers doing the work around the mill. And we had a quarrel you see, [ inaudible ] One of my jobs that I had when I went up there was working in this mill and I was in charge of the loading of cement into sacks and into the cars. We shipped from there frequently. I had some mexicans working for me. The were young, they were good workers. There was no trouble with them at all.

Dodson: How did the wages run at that time?

Mulholland: WE got uh, I think uh, we had some laborers as low as a dollar and seventy five cents. You paid seventy-five cents for your meal. Then it went, never be very few, I remember a couple of old men came along in the place where I was working and they were hired

. . ., [Interuption. Noise in the background.]  
Uh, and uh those two old men the boss gave them a job and he gave them the lowest wage, but he didn't give them a hard job. It was just something they could do. So, in a sense, he was doing them a favor even though he was giving them the lowest price. I think uh, let's see, laborers probably got two dollars and two and a half would be common labor.

Dodson: Now, did the men live on the job or did they come back and forth to Los Angeles?

Mulholland: Oh, no. They lived on the job.

Dodson: WERE there any charge then for living quarters?

Mulholland: Nothing for living quarters the only thing they had to pay for was their meals.

Dodson: I see.

Mulholland: They uh, lived in camps mostly. Out in the desert was where one of those camps was. See I always worked in, besides the cement mill, I came down and worked in a place where we made an adulterated cement. We mixed our cement with cucarah [sp?] and we made it go further that way. So we had to build these little mills. The mills that we used up there were what they called a "ball mill" and a "tube mill." A ball mill revolves and has shelves, plates and these plates have a shelf on them and as they go around in a circle the ball, when it gets to a certain height will drop onto a plate below. That's how you get your grinding. It's ball ground on this thing.

A tube mill was, that's a long tubular mill and it revolves very slowly. Both revolve slowly but the tube mill, it's lined with flint stone. The cement comes in one end and it had a very gradual slope to it and then inside of that are these rocks. Most of them we got from Greenland. They had to be almost like the flintstone themselves. They, as this mill would revolve they would pull these rocks up on em and that's the way we made cement. When we were in this mill, building this little mill, there was one fella there who couldn't hold his liquor. You could call him an alcoholic I guess. There was another fella there who was in this little camp because while he was there, while he was away from his buddies. He couldn't be around his buddies because he was drinking too much, see. So he went clear out there on the desert and worked in this camp. But he would send to town and get a bottle of whiskey. This other fella who didn't do to well he, well he could handle it, he could handle it if he was by himself, so this other fella knew his weakness and so he put quinine in it, he put a big wad of quinine in it and it would be so distasteful to him and he'd get sick. [laughter] He knew what he was doing but that didn't stop him. So now, he not only got drunk but he got sick.

Dodson: It would also have a little deafening effect if you take that much quinine I imagine.

Mulholland: Oh. Sure. I don't know just exactly how deaf the person, but certainly it was doing what he wanted it to. I have to feel sorry for people like that.

Boyer: How long did it take for them to complete, to build the aquaduct?

Mulholland: Let's see. I should know that but I don't. Five or six years at least.

Boyer: And when they finished, were they excited?

Mulholland: You know where this water comes down at the head of the valley? Well, that's where the dedication ceremony was.

Boyer: But what did they do?

Mulholland: Oh, they everybody's brother or anybody that belonged to anybody out there and they had this big finishing thing, and my uncle was there. My uncle remarked when he opened the gate, "there it is." [laughter]

Dodson: Were you there yourself that day?

Mulholland: Uh, I guess I must've been although I can't remember. I've been to a number of ceremonies in that area which just recently in the last few years we celebrated that because it was, had been in existence for fifty years. It's an engineering feat. Something has to have long duration to have an engineering feat. This is an engineering feat and I guess it's international. So that was another time when we were out there.

Dodson: Did you have any trouble with the people of the Owens Valley while this was under construction?

Mulholland: Uh, as far as I can remember during the construction

we didn't have any trouble there. I didn't work in that area at all myself but the uh part of the trouble with the Owens valley people was because of a couple of bankers in that area, crooked bankers. They embezzled the money that people in the valley had given them and they went to jail later. They were the agitators, the chief agitators against it. They did that to get their minds, the people, off of them while they were taking their money away from them. They were getting them to be all excited about something else and then while they were robbing them. I think the people, they were probably the ones that did most of the agitating. Some people, without a doubt, that was a way of life for them. They didn't want to change their way of life. Some people I think really were affected, but for the most part they could move to another place and carry on their lives just the same. I don't think anyone was cheated out of anything as far as dollars and cents. I think eventually everybody got a good price for what they sold.

Dodson: Now, you mentioned that there wasn't too much pick and shovel work. Was that because the aqueduct was laid on the surface?

Mulholland: Well yes. The uh, a big part of the Aqueduct is just a ditch.

Dodson: Now that would have required pick and shovel work.

Mulholland: Yeah. Well, it was pick and shovel work but what I meant was it wasn't like diggin in hard rock. There was more shovel work than pick and shovel work.

Dodson: I see.

Mulholland: And they had tunnels. There were a lot of tunnels and the people worked on these tunnels. They made records on the hard rock miners who worked on the aquaduct on several occasions because, that was another idea my uncle had, they gave a bonus for so much a foot. They worked in shifts and you'd get a lot of work out of those guys. They were really workin against each other in a lot of ways. They were rivals. The more footage they got the more money they got. So, that part took care of that end of the thing. Miners made pretty good money. They made three and a half a day for an eight hour shift which was good money back then.

Dodson: Beside the aquaduct a number of dams were built too were they not?

Mulholland: Well, on the aquaduct they had, originally, one big dam. That's the Haywe [sp?] reservoir. The other dams were built locally. Actually, we quit building dams in the city over fifty years ago.

Dodson: That right? Was the Van Norman dam the last one then?

Mulholland: No. It's not the last one. To tell you how it worked. You had a hydrollic job and you made use of that through electrcity. So we had to have a dam and in those days we used more water in the daytime and more electricity at night. That's not the case anymore.

Dodson: Oh, is that so?

Mulholland: No. You have your refrigerator. You have your cooling system. You use more electricity in the daytime than you do at night.

Dodson: I never would've guessed that.

Mulholland: Oh yes. A lot more. Well you know on a hot day when everybody starts their, that's the only time we're ever near running out of electricity. It's in the daytime not a night. When the lights went on that's when we used the most electricity. So that meant that, in those days we built a reservior as high as we could to serve an area and then there would be a drop to a lower reservior and then that drop would generate the electricity. That meant that we'd have to have the reservior on the upper end of the syphon and then we had to have the one below because of the different, because we used the most water in the daytime and the most electricity at night. So, it worked fine. But we had to build a reservior for the water to go in at night but we weren't really running our generators. You had to have a place for that water to land and you had to have a place to put the water so you'd have it to use at night. One reservior was filling up at night and the other reservior was filling up in the daytime.

Dodson: So you had two reserviors at each powerplant? Is that the way it worked?

Mulholland: Well, the way it would work would be that we'd have to have something on that nature. With our aquaduct so then what happened was that we then found it to our advantage to build reserviors so we'd have the water. We'd build little reserviors on the other

side of the, of the mountains here. Stone canyon is 10,000 acres. That's a pretty good size but the other ones, they're not large. They were not necessarily for that purpose; as a place to store water. They were, they'd take care of fluctuation in the amount of water that was used. They'd have the water in quantity when they needed it. Then in the night they'd be filling up. We started building the "metropolitan" I guess we started the real building of large aqueducts throughout the whole area of Los Angeles all the way to San Diego. They don't have storage basins. We don't need storage basins anymore like we did because we don't have that condition anymore. What we have now are our own large conduits within the city itself. So we, for the most part, the same way as the NWD was serving people. It went from a large plant to a small plant. That's what it amounts to. And that's the reason why we don't, in the first place, have a sight for reserviors. There are no sites for reserviors left of any kind so we really don't need, we don't need them for storage. See, we not only had to plan for storing water not only for daily fluctuations, we had to have storage water for yearly fluctuations. That's not necessary anymore.

Dodson: Wouldn't you still get yearly fluctuations as a result of drought?

Mulholland: No. We don't have. We have never run into that yet. Cause we've always had an ample supply. But, see when we started we ran short of supply



by that time. Another thing is my uncle was really the conciever of this thing of bringing the water in from Colorado to this valley.

Dodson: Yes, I'll be glad to hear about that cause not many people associate him with that. They always think of the aquaduct.

Mulholland: \_It was on his say so, that the people who really had a say so, absolutely later asked him if it was something that could be done. He made the survey for them and he came back with "yes" as the answer. So, in that respect, it was his word, you might say, that made that thing come true at the time it came true.

Dodson: Was he the engineer on that project?

Mulholland: No he was not. He just had, he made the survey of the materials that lay under to see the feasibility of it, but it was on his say so that the powers that be said, "go ahead."

Dodson: Did he make the survey for the aquaduct to decide what the route would be for the aquaduct?

Mulholland: No, he, well the survey consisted of determining where it would be. See, that water has to be pumped, I think sixteen hundred feet over the mountains to get to this area from Colorado.

Dodson: I was referring to the aquaduct.

Mulholland: The aquaduct?

Dodson: **Yes.**

Mulholland: Oh. A, he was, do you mean if he was the engineer there?

Dodson: Yes. Did he decide the route for the aquaduct?

Mulholland: Oh yeah, yeah. That was all, all the survey, as well as, all the other engineering projects were under his supervision. They uh, they were quite a job. [chuckles]

Dodson: I can imagine. But you say he also did the survey for the Colorado river?

Mulholland: He did the survey to determine if it was feasible. That meant he had to know where the ups and downs were and where he would have to make a tunnel and things of that nature and if you could dig it, the length of it. The survey was made under his supervision.

Dodson: Can you tell us anything about the Saint Francis Dam? What caused it's collapse?

Mulholland: Uh, the Saint Francis dam, that was a disturbing thing. See, what happened with that Saint Francis dam was not a water project. Now, that doesn't excuse the water people from not building it safe. It would still be there if it was possible. Because of what happened, I told you how the water, we had to store the water in one place and then bring it down, well, we were using the water. We didn't have a place to put the water when we were using it so we, see we built the Van Norman dam and that would take care of the situation. Then when we started to use, to put more water through the plants, we

filled up the Van Norman reservior and then the smaller reserviors, we filled them up too. We had no place for the water to go. We were still, uh, so we built the Saint Francis dam. It wasn't a smart thing to build in the first place because uh, for that purpose. It was an error in the first place to build it. The purposes they proposed to build it were, because they filled it up in a few months. It wasn't as if you were building a permanent thing because they filled it up in a few months.

Dodson: So it was of no further value then after they built it?

Mulholland: No. No, it didn't have the value that it did have while it was filling up. It was supposed to have two values: a place for the water to go while we were using it for the plant but after they built the reservior there was no value there because if you couldn't get it out of there it didn't do any good to have it. We had a reservior full of water and a sink full of water. It went in and out but part of it didn't fulfill the two purposes. So I've oftended questioned it. See the powers, the water department worked, more or less, independantly of power company. It wasn't very long after we started generating electricity that the, especially when we started to have steam plant and things of that nature, that the power department was far bigger than the water department. [inaudible] The water in the power department was a great big organization compared to the present day water department. Now, see, we've got our

aqueducts built and we've got water mains going all over so now they have mostly maintenance. But the power, that expanded so it's outgrown the water department . The water department is practically it's little brother. [laughter] And that was the reason why that Saint Francis dam was built, to help the power department. They shouldn't have built it. As far as, I saw that reservoir when it was, just before it had that accident, you know what happened. Boy, it was beautiful. It was a beautiful plant and uh, I don't know whether we knew as much as we do, I know we didn't know anything near as much as we do today and uh. . [interruption]

Boyer: You mean the construction and building and the geology and stuff?

Mulholland: It's entirely possible that one of the buments was not built of the right material. That's entirely possible. And we didn't know anything about building then. That's one of the first concrete jobs we built. When we built that dam, well, today when we built the Boulder dam, that's a concrete dam, when they built that they had pipes going through it to control the setting of the cement.

Dodson: I read that they did. The cement would stay hot too long if they didn't cool it with those cold water pipes.

Mulholland: See, when we built this little dam, that was not the knowledge we had. The same way with the earth-built [sp?] dam. Today the earthbuilt dams are far better than some of the old ones because of the knowledge that we have. But when they tell you that there's an earthquake proof structure

that they can build, an earthquake proof structure, don't let em tell you that. There is no such a thing. [chuckles]

Dodson: Now I know one of the governor's advisors in seismology. He says that the question is not whether the dam can withstand the first shock, it's what happens with that second shock.

Mulholland: Well that's why I thing the same thing is true with buildings, these high-rise buildings. Uh, because, suppose you have a steel framed building and uh, like we have today, with rivets. Now, when they have a shock, see the number of rivets there is the number thats supposed to be there. So, if they had a shock that takes out two out of ten say, the next shock of the same magnitude would probably take four out of what's left. So, these weaknesses would be growing and I don't think that they're giving that much consideration.

Dodson: Well, I kind of agree with you. I wouldn't want to be in one during an earthquake.

Mulholland: No, no. We're taking too many chances doing what we're doing.

Dodson: You feel the Saint Francis dam just wasn't put in the right place then? That that may have contributed to the disaster?

Mulholland: The sight may have been wrong, but there could also have been a shock, or a series of shocks that weakend it. See, I don't think we ever found out until we had this last shock. What the shock does, the ampli-

fication of that dam was fully saturated. So, with the water pressure against that, in other words, there's a wall of mud standing there. With a wall of mud, what a quake does to that is make it unstable. It becomes more fluid. It becomes so fluid that it acts just like a bunch of water.

Dodson: It just slides off.

Mulholland: Yes. It slides right down. And that's what the quake does. And if that quake had lasted just a little while longer, that second, it would have been the end because just a little bit more of that sliding down would have let the water through. So, that is of course, now why they build dams, earth built dams, that will resist that part. Unless they're filled with water the well-built earthen dam will do what the others couldn't do. On the other hand, if you had something go underneath one of these dams, no matter how well it's built, it can just sink down into the ground the same as any other portion of it.

Dodson: Well, do you think that the aquaduct is vulnerable to earthquakes at the present time? That it, earthquakes could affect it?

Mulholland: The dams or the reserviors, or the ditch?

Dodson: The ditch.

Mulholland: Oh yeah. We go through and syphon some things with the ditch and we go through some areas that are pretty vulnerable to earthquakes. We're pretty

lucky. [inaudible] Cause all you have to do is go like this in a tunnel and you've ruined the whole thing. Same way with big pipes coming down, up and down. A few sticks of dynamite can blow a pipeline up. And a severe shock, it doesn't even have to be a severe one, can ruin one of our syphons. And before they can get the water turned off it will do an awful lot of damage. There's no way of having gates close enough together to set the water off so it won't do alot of damage. So, but, there's no danger there, as far as life is concerned, or very little because of those kinds of shocks.

Dodson: Our aquaduct would then be vulnerable if we get this big quake that the seismologists tell us about?

Mulholland: [response is inaudible]

Boyer: It just depends on whether it hits at the right place or not?

Mulholland: That's right. A very small quake in the wrong place can do more damage than a big quake in some other area. We don't have to worry about that to this extent that it's not the kind of thing that we couldn't mend. We can always mend it. We can, uh, and we are not dependant now on one source of, or one area for it. We have, we can always get eighty percent of our water from our own aquaduct. The uh, water from the north is used many times in greater volume than what is used in the city. That water goes for all the irrigation to the south as far as

San Diego. The water that is coming in from the Colorado is coming in at a greater amount and we have access to that water, both the northern water and the Colorado river water. So we're going to have to have an awful bad catastrophe to get us in a way where we're awful bad for water.

Dodson: It would have to damage all of those different systems.

Mulholland: That's right. It would be, course, some of them do come through the same area but we know from experience that we don't have shocks very close together. I mean, we have one, we have a shock in a very small portion of an area and it's doubtful really. Well, we could have a lot of shocks in say, one of our aqueducts because of the way the ground was made. On the other hand, it could run along side of it and nothing happens to it.

Dodson: That's amazing that it works that way.

Mulholland: Yeah.

Dodson: Yes, I suppose the nature of the ground you're going through would have a great deal to do with the amount of the shock. With the way it would be felt.

Mulholland. Undoubtedly. We don't, we don't know too much about earthquakes yet.



Dodson: Well, I've read that the rictor [sp ?] scale in its upper region probably isn't recording the full intensity of them, when it comes right down to it.

Mulholland: That's, yeah, I saw that too.

Dodson: Were there any particular engineering problems that developed while the aquaduct was under construction; things that hadn't been forseen?

Mulholland: I don't believe so. The only, uh, during the construction, I know there was a little trouble on one job, on one camp. My uncle, I saw my uncle right after that had happened. He came through this place where I was working. I'd heard about it, and that's another thing about my uncle, there was never, today you know when something happens they're lookin for a goat. My uncle never looked for a goat. When the Saint Francis dam went out he said if any human is at fault, I'm that human.

Dodson: So, he never did try to blame it on other people?

Mulholland: No. He never did try to blame it on other people. So, when he came through this job, it was under his supervision, [inaudible] I asked him about it and he said, "faulty construction." No alibi, faulty construction. He was just so much for, he was uh, I guess he insulted more people than anyone I ever saw. Because it was honesty. Basically, he said what came to his mind. I huh, my oldest boy came down here from Seattle when he

when he was about a year old. I stayed at my sisters house, was at one of the little reserviors. Her husband was there, workin there, and my uncle came over on the job while we were out there. So she brought her son over to show him to uncle Bill. He looked at him, "he looks like a little jew." [laughter] One time he told me something. I think that was an honest thing too. He said that, I think something came about asking somebody. He said, [inaudible but laughter follows.] He said, when you go to work for somebody, you do their work. Do their job. He said its pure selfishness. In other words, [inaudible] in a sense but its a driving force. The same as everybody else has, I guess. Funny, he made more of his than the rest of them made in this thing. [laughter] Pure selfishness that he hired these men to do what he had to do. That's the<sup>2</sup> reason he hired em because they could unload his burden. [laughter]

Dodson: Do you remember what his reaction was to the destruction of the Saint Francis dam.? Did it hurt him?

Mulholland: Oh yes! Yes. It really hurt him. It really hurt him. Although, he was very strong physically and mentally. If he hadn't been that it would have bothered him more because, now now uh, you might say it finished him, in a sense. It finished him.

Dodson: Is that right?

Mulholland: Yeah. He was old by that time too.

Dodson: He was seventy-three wasn't he?

Mulholland: Seventy-three. I don't remember.

Dodson: I think I read that somewhere.

Mulholland: But uh, It didn't bother him in the sense that uh, I think he felt that it was his fault. That he could be, in other words, he didn't really feel that all those people who were killed was something that he could have prevented. I think that's what kept him from being worse off than he was. With the knowledge they had at that time, that was probably the poorest. No one had, at that time, more knowledge than he did probably. He wasn't around. Somehow he wasn't there. Still, I suppose, that thing happens over and over and over because of lack of knowledge. Course if a person deliberately does something. I used to be a building inspector once. I used to check plants in the [inaudible] department. I ran into people that were crooked. Contractors. If they weren't kept in line, we would be in a bad way.

Dodson: Now, that's certainly true. How long did he live after that time? When did your uncle pass away?

Mulholland: I think he was eighty-two or three, or something like that.

Dodson: I just wasn't sure, I hadn't come across the date when he did pass away.

Mulholland: I'm not quite sure but I think that's my recollection of it.

Dodson: Did he live here in the valley or did he live in Los Angeles?

Mulholland: No. He lived in Los Angeles.

Dodson: Paula, do you have any questions about the dam or about the aquaduct?

Boyer: Uh, not that I, uh, no. Only what I asked as we were going along.

Mulholland: Uh, one thing I thought I would mention about the San Fernando valley. Uh, how people got in and out of the valley, I remember that.

Dodson: We're glad to have you talk about the San Fernando Valley now and your recollections of it.

Mulholland: Well, this is the thing worth sharing. It's hard for people to understand today. The pass down here where we have our freeways going.

Boyer: Uh huh.

Dodson: Cahuenga pass?

Mulholland: Yes. That used to be a dirt road. And a steep dirt

road. Because in those days we got up and down with horses. And that road was long enough and steep enough so that if you were hauling some goods, a load of materials, with a team, you would have to stop your team and let them have a breather before you got to the top. And then when we started to get automobiles coming over that pass, the automobile would boil coming over that pass.

Dodson: It's hard to realize now that it was that steep.

Boyer: Yeah, they've dug a big ditch in it now.

Mulholland: Yeah, it was that steep. Then, of course, the other way they got in was San Fernando road. That was another entrance to the valley. Then on the north side, they had to have a pass going over towards Newhall. They had a tunnel. You know where the freeway now goes over it.

Boyer: You mean like a, a, where Sylmar is and stuff?

Mulholland: Yeah. Well, the freeway now goes from the valley to Newhall.

Dodson: Yes.

Mulholland: Well, on that grade, or farther up that grade, or higher I guess the tunnel was higher than the present roadway. And you had to go up this line, or roadway to get to this tunnel to get out of the valley. Eventually they cut the tunnel down. The thing, the same thing comes

from Supulveda. The tunnel up at the top of the mountain, we went up to this tunnel and through the tunnel and then down on the other side through the canyon. That's how we got in and out of this valley. Then, the other thing that happened, and this was foresight, another thing with great foresight. The laying out of streets in this valley, people don't realize that we've got throughout this whole valley, north and south, are sewars, highways every mile and a sub-road in between.

Dodson: Oh, is that right?

Mulholland: And that was, that was planned a way back there.

Boyer: Do you know who was responsible for it all?

Mulholland: hum?

Boyer: Do you know who was responsible for the laying out of the streets.?

Mulholland: At that time I think he was one of the few, one of the few, he probably was more responsible for other people because he was an engineer.

Boyer: You mean your uncle?

Mulholland: Yeah. Because uh, that's about the time he came out here as a farmer. That's another thing that people don't realize. How we got our citrus groves in the valley.

Dodson: Well, can you tell us about that?

Mulholland: Yes. The citrus tree takes five to seven years to mature and to produce fruit. So what they did was they planted Lima beans between the trees and the, and it served two purposes. It gave them nitrogen for the tree and it produced a crop to help pay for the cost of the citrus trees while they were growing. A lot of people don't realize that uh, that it takes a long time for a crop to produce, a fruit tree to mature. That was a life saver.

Dodson: I can imagine. Yes. If it takes that long for the trees to mature.

Mulholland: You see, lima bean gets its moisture from the air.

Dodson: So it's adapted to a semi-arid climate then.

Mulholland: Yeah. The bean gets its moisture from the air and that produces nitrogen. Nitrogen is the best fertilizer that we have around here. The uh, I remember the uh, where Beverly Hills is today, that was all lima beans. Along the coast where there was fog, that was a good place for lima beans. It was a good place for lima beans because of the moisture from the fog. That whole area was nothing but lima bean patches through there.

Dodson: I imagine that even in the present drought situation even the lima bean wouldn't do very well though, would it?

Mulholland: Uh.

Dodson: The air must be very dry now?

Mulholland: oh yes, the uh, well, I don't know what the uh fog situation is but certainly even in the dryer weather you have dew on your grass. So maybe that's all the moisture it needs.

Boyer: Uh, Mr. Mulholland when did you come into the valley yourself?

Mulholland: When?

Boyer: uh huh.

Mulholland: Well, during the uh depression.

Boyer: What was the reason, the reasons you decided to relocate out here?

Mulholland: Uh, I was working for the building and safety department and the depression came along. I lost my job.

Dodson: You were one of a great many, I imagine, that did at that time.

Mulholland: Yeah, yeah.

Dodson: Well, were there opportunities in the valley then that caused you to come here?

Mulholland: No. I came. When I came out in the valley the



first thing I did was, I started raising chickens. I lost my job and came out here. We didn't buy a ranch or anything but we found a place where, it had a setup for a chicken ranch and it had a little house right there where we could live so we raised chickens for awhile. Then I got, eventually I went to work for the water department again. Every time I started back with the water department I started at ~~the bottom~~ better.

Dodson: [chuckling] So you were working up then weren't you?

Mulholland: I always did better someplace else, but when you get so far along you don't have any choice anymore.

Boyer: How did the depression effect the people out here in the valley?

Mulholland: Well I tell you. The depression, everybody was affected by it. Tell you what the depression did to alot of people which is not realized and the same thing is happening today. We have, when we built the [inaudible] reservior, I worked on that myself, we had some good men and we finished it. That was of course a temporary job for most of the people working there because they were lucky to be working there because there wasn't that many jobs anyplace. But later, I saw some of those men on W.P.A or P.W.A, W.P.A I guess it was, and it was unbeliveable. They didn't care whether they worked or didn't work. And they were good. Man they were good. The same thing is true of, this thing of

having people out of work which is worse than alot of people realize because that's whats killing them. It's ruining them.

Dodson: I think there was an interesting documentary on television yesterday about the farmers in Florida can't get people to work on their crops now because due to freeze these people have gotten on relief and gotten food stamps and now they won't go back to work even though they can get work.

Mulholland: Yeah. That's true. That's one of the things that we have to, uh, I read another article about, I think this man. He worked on golf courses. He had a job and he took care of the golf courses and then winter came and the snow was on the golf courses and he didn't have a job. So every winter he'd go down to Florida and he'd go and he'd stay. He worked so many months a year and then he goes down there and lives the rest of the year. He doesn't try to get another job or anything else. He makes no bones about it.

Boyer: When you came out here during the depression, were there a lot of people coming out here or did you see major influx after World War II?

Mulholland: Well, as far as I know this was no better place to come to than any place else. No matter where you went there wasn't work there.

Boyer: There wasn't alot of people out here though was there?

Mulholland: Well, not anywhere near what there is today.  
Oh no, not nearly as many as there are today.

Boyer: Was it more rural?

Mulholland: Yes. See we had a lot of little ranches in those days, as well as the larger ones.

Dodson: Do you remember the impact of World War II on the valley? You were living here at that time.

Mulholland: Yeah. Well, as far as World War II I can't remember if it had any effect on the valley people. I think a lot of people prospered because we had a war. We had jobs we didn't have before. It put alot of people to work.

Dodson: Yes I know alot of people got jobs in the munitions and shipyards and aircraft factories, that sort of thing.

Mulholland: Yeah. Well, I think that the valley fared well because of the war.

Dodson: Do you remember the effects of earthquakes on the valley?

Mulholland: I can't remember the earthquake uh, having done anything in the valley that was of a harmful nature. I remember one earthquake they had when I was on this little chicken ranch. We were in the little house and then there was a shock, my wife and I

were both in the house and we both ran to the door and stepped outside and as we stepped outside just as we stepped outside, there was a second shock. The second shock did this to the house. And we were standing there. I never moved so fast as when I moved from under that place. It was this crazy feeling that here's this thing coming right through but it setteled back and there was no cracks. It was just crazy.

Dodson: Do you recall whether any of them damaged the aquaduct at any time?

Mulholland: No. Oh, we had a few things happen in the aquaduct that I remember, but none of them serious. An earthquake is not the, it's more apt to do damage when it knocks something down.

Dodson: Have they damaged the dams any?

Mulholland: Uh, as far as I know the damage, all the dams were not damaged as far as I know. Except the Van Norman. Both of those dams were damaged. The upper Van Norman, alot of people forget that. The upper Van Norman, the quake there had the same results in the lower Van Norman as they had in the upper, there wouldn't have been any dam there. The damage to the upper Van Norman was proportionately much greater than it was to the lower dam.

Dodson: Did it crack the dam? I'm not aware just what it did to it?

Mulholland: It sunk the whole upper half of it. The portion that stayed there was capable of holding back water.

Dodson: Oh. Well, was it not full at the time then ?

Mulholland: It was not full. I know that. And I think that, I don't know just exactly what. Uh, uh, it couldn't have been because the water would have gone over the top.

Dodson: That's what I wondered about.

Mulholland: Yeah. It couldn't have been. If it had been full there could have been enough water in it to finish off the lower dam. I never thought of that before.

Dodson: Has a new dam been built out there now?

Mulholland: It's just about completed, I think. The problem, see uh, on the dam. See, when they had the earthquake the first thought of the people in the Water Department was to ensure that the people in the Valley would not be without water. And, uh, that was the thought that they had. So, that was the statement they made. That uh, they're gonna rebuild the dam. That was just the wrong statement to tell those people. They didn't want anymore dams.

Dodson: No, I guess they were pretty nervous, those that lived there.

Mulholland: Yes. That didn't give them credit by certain newspeople in the valley by making them build a smaller dam up there than they intended to build. They couldn't do it because there were quite a few articles on that subject and this newspaper man

used to come out and see me then he'd go down and see the Water Department, then he'd come back out here. He put all the things together and I guess there was something to what he wrote but uh, they decided. See, what they had, what we had, a potential basin up there capable of holding twenty-two thousand acre feet of water. Now, I think they, I know they were trying to rebuild it. When they agreed, if they had no earthquakes, and they didn't find out that that was on an earthquake crack, or fault, they would have rebuilt it and they probably would have rebuilt it for say, a thirty or forty thousand acre foot reservior. It would have taken up that whole area.

Boyer: Uh, huh.

Mulholland: So, the earthquake knocked that out of the picture. And the other fault, we ended up, I contended that because of the new water we were gonna get from the north, we were much better off than we were before. We didn't need to replace that reservior with even what we had there before. It was their intent, I think, to build a reservior that could hold at least as much as what they had there before. The original. And then they ended up by building a ten thousand acre foot reservior instead of a twenty-two thousand acre foot reservior. And then they gave the same reason for not building it that I gave it. It was because we had the new water coming in. One of the things that people don't know was, in this valley we have enough water to last us probably a couple of years. Underground.

Dodson: That's a relief to know in view of a drought situation.

Mulholland: And uh, uh.

Boyer: The water table's just a few feet underground or?

Mulholland: No. It's down, it's down quite a ways. In the old days, you see, the city of Los Angeles had a grant, a Spanish grant. It goes way back to the beginning of time. This water in the Valley belonged to the City of Los Angeles. Not Glendale. Not Burbank. And the city of Glendale and Burbank were pumping water out of this valley and uh, because they were pumping water out of this valley we were pumping water out of the valley so that we would get our share. And uh, it was not the intent to do it. They asked, we said "alright." But, we expected to use this basin as a storage place. We would have but we had to keep taking water out and uh, that is they thought they had to. If they had followed up when they started this with Glendale and Burbank, the first judge made a very important decision. He went against the city. And that threw things all back again. Then when they appealed it, the last judgement was that the city does own the water rights.

Dodson: To the Los Angeles river.

Mulholland: Yeah.

Dodson: Yes. I think I saw that in the paper and it's very interesting. They based the decision on the grant of King Charles the third of Spain I believe it was.

for the Pueblo of Los Angeles.

Mulholland: But uh, that's one of the reasons why we don't have more water underground today. It's because they were taking it out illegally. And we thought we had to take it out. And, and, it was really the attorneys fault not [inaudible] the attorneys should have pressed it in the beginning because uh, any true judgement in the matter would only have been in those places. I mean, even if he'd favored them at all, they'd only get ten percent at most. So, instead of pressing it, the attornies didn't press it, they should have pressed it way back there when they first started to take it. They didn't so I think they're still trying to get another decision. I don't think that it will ever come about that way because it's logical. And uh, we sure, you see the first judge that made the judgement about the water down there uh, wouldn't even give us hu, allow us to put water in and claim it as our own.

Dodson: You couldn't spread water and have it sink in.

Mulholland: No. We couldn't do that. You see what kind of a bind we had. Now as far as that he was off from common sense. No matter what everything else says, if we put water someplace on our own land that surely belongs to us. And nobody else can come along and pump it out. But he wouldn't even give us credit for that part of it.

Dodson: Would this problem arize if the Valley were to Ceceed from Los Angeles? Would it be left without these sources of water such as the water from the

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Owens Valley?

Mulholland: Well, ha, ha, that would be quite a problem.

Dodson: You probably read that Senator Robins, for instance, would like to have the Valley ceceed?

Mulholland: Yes. Oh, that's been going on for many, many years by different people. But uh, I don't, I don't know how they could do it. As far as the utilities, now the utilities belong to the City of Los Angeles. How, uh, maybe the Valley would get a proportion. No. It would be hard to follow. It's not a practical thing. No, it's not a practical thing. They can do something. If they are getting the short end why we're gonna always run into that.

Dodson: But so as to go so far as to leave the City ?

Mulholland: That's right. Well, Robins is an opportunist. It's pure and simple, nothing else. And uh, he's a young guy and worth some money. He's smart. No, that's the reason he's pickin at it. Anything that he can pick at, he get's votes that way. But that doesn't mean he's given it any, it's because he hadn't thought it out that he;s come to that conclusion.

Boyer: In speaking about the Valley, have you seen any great change that you consider to be major in the Valley?

Mulholland: Well, of course, the uh, the real change in the Valley was to get the water and make an agricultural district. Next change we have is what we see. How the place grew up. Dig up the orange trees and build a house.

Or a factory or something. That's your real change. And uh, uh, it's surprizing you know, how much vacant land there still is in this valley.

Dodson: That so. I'm not very conscious of much of it myself. But maybe that's because we're mostly in the eastern part. Maybe the western part still has some.

Mulholland: Yeah the western part. You go out west and uh, you'll see an awful lot of vacant land. And uh,

oyer: You think one day it will be all filled up with houses?

Mulholland: Say again?

Boyer: Do you think one day it will be completely covered with houses?

Mulholland: Oh, there's a, I really don't know whats gonna happen for this reason: see, I'm on the Veterans Committee on, Advisory Committee on Transportation. And we have a meeting every month and I'm wondering what's gonna happen. The uh, portion of the group that I'm representing are the elderly and handicapped. But, on the other hand, I belong to another group, which is Valleywide Streets and Hiways. They are twenty-five years in existance and they are the ones who got the mayor to see the Governor and get the Valley streets and hiways straightend out. So, see we're in kind of a bind right now. We have a Governor that is really young. He's a made the foolish mistake to think that the young people know more than the old. It isn't true at all.

So, actually, what I've often wondered about was what's gonna happen to the valley in this respect because I look for, when we get rid of these people like Baxter Ward [last name ?] who wants to build a railroad that nobody's gonna use, we're gonna come to a rapid transit line throughout the county. And when we do that it means that people, for instance a thing that can go seventy-five or seventy miles an hour from Simi over towards Los Angeles on its own roadway, that's gonna mean that, land is alot cheaper over in Simi than it is in the valley, it means that people will go into Simi and build themselves a house and get to town faster than we can from here. You know what I mean?

Boyer: Yeah. Uh, huh.

Mulholland: Now you put that in uh, going on the Ventura freeway the same way, going out, you already have a line going out towards Pomona. If you had a seventy mile an hour bus that made frequent stops you're really going to make people, a nice comfortable bus to ride in, and I think that busses will become better as time goes on. Because, are you familiar with the uh, what they call pool vans? Uh, Van pools?

Boyer: Yes.

Mulholland: Well, those things are doing masterpieces. They have those seats for you to lean back. You have your own light, your own ear-phone. They're really, uh, we're really having a good time. And they get, I understand the people get acquainted with each other.

Boyer: Uh huh.

Mulholland: So, they, I think that we're gonna have much better people uh, riding conditions. The people in this country are rich. In spite of the fact we've got a lot of people out of work. Those people, the people are so rich, they're rich because they have a bad habit of useing automobiles to go to work instead of letting somebody haul them. They're spending enough to go to Europe every year.

Boyer: So, you feel that what the valley needs is a change in the transportation? Some kind of rapid transit?

Mulholland: Well. What, what , what, see what happens is. What I'm thinking about is if this, if people, if you put this rapid transit bus system in the people uh bypass the valley. Do you follow me?

Boyer: Oh. Yeah.

Mulholland: That's the thing that I'm thinking about. And bypass the valley. If they don't come down in their Packards and whether we can go fast enough to make it so that people don't have to hold onto their property forever until they can get something built on it why uh, as I said, on the west end of the valley there, there is still a lot of land vacant. And uh, that's just one of those thoughts that came to my mind. People like to keep going out and out. There's no question about it. And if you made it so they could ride like a king from where they lived to where they wanted to go and you made it cheaper than what it would cost to drive from here I think a whole lot of em, a lot of em are gonna bypass the valley. In fact, you might say that the people who have moved out, to a great extent have bypassed the valley.

Boyer: Oh, really?

Mulholland: Yes. People in Simi today and all other outlying areas, they've bypassed the valley.

Dodson: Now, we've been talking about bussing. This brings up another controversial issue, the bussing of school children. How do you feel about that?

Mulholland: Uh, heh, heh. I, I don't think that anybody knows the answer to that one. And its doubtful that it will ever come to any proper way of looking at it. There's been an awful problem here. A Mexican problem. Those kids have to learn to become Americans. They don't learn it at home. They can't learn it at home. So you have, there's a, there's a place where you have to give those kids special schools. And uh, when I was a kid I went to school past Water street. That's downtown near, almost down near Los Angeles. Where Chinatown used to be. And uh, I went to school with the Spanish, Italians and there was orphans, county orphans. There was an orphans home right next to the school. And these orphan home kids had a variety of different kinds of people with them. And there was some white kids there too. But uh, the Italian kids that I knew always wondered how it was, they learned English and I didn't learn Spanish. And uh, now that really, they really were wondering at that. And uh, you know, maybe I should have been taught Spanish at school. If I had been maybe it woulda been easy for me to learn it. Because of these other kids, it would have been a very good place for me to learn Spanish. Maybe that's what they

can do with some of the people, the kids, they can take these Spanish Mexican kids and uh, give them a chance to become Americans. Not Mexican-Americans, Americans. I don't think they're gonna<sup>2</sup> get anyplace until they become Americans not Mexican-Americans.

Boyer: While you're talking about minorities and about em being Americans etcetera, uh, when you came out to the valley was there any problem with minorities and minority rights here in the valley?

Mulholland: Oh no. There was nothing like that here. There were, we had them in San Fernando and in the west valley, they were always there. Mexican villages you might say. And uh, but, nowadays there's uh, that's something that we have a problem with that other places do not have. That makes it worse for us. See, maybe that's our real problem instead of doing what they're trying to do. See, the Mexicans are a minority because they're being left out of the picture. That's their complaint. It's between black and white and mexican isn't even considered.

Dodson: I believe, from what I read, that they are more interested in improving their schools in their, in the East Los Angeles area than they are in bussing.

Mulholland: Well, I think so. That's the way I get it. But, but uh, on the other hand, they don't learn how to be Americans in their Mexican homes. So, maybe they need bussing more than anybody else. So there you see, that's the problem.

Boyer: Could we ask you what you think is the most important event that ever happened here in the valley?

Mulholland: Well, of course, the water.

Boyer: Yeah.

Mulholland: And then the. . .

Boyer: [interrupts] You feel that way to then that the water was the most important thing in the valley?

Mulholland: Uh, what?

Boyer: Most people we interview say the same thing. They feel that the water was the most important and you feel that way too?

Mulholland: Oh, yes. Yes. There's no question about it. Because uh, you know, getting water into this valley, we did something with this water that is not done as a rule. We [inaudible]

Boyer: How's that?

Mulholland: We irrigated and we picked it up and moved it again.

Boyer: And that's not usually done?

Mulholland: How's that?

Boyer: That's not usually done?

Mulholland: I don't?

Dodson: She's questioning whether, in most places, the water can not be reused.

Mulholland: Well, yes. It must, see, we are, we have a natural slope in the valley and the water that goes in up there eventually gets down here. And here we have our wells. Our, we take a lot of water out of the river around Griffith Park so that's one reason that we reuse the water.

Boyer: Twice.

Mulholland: Twice. And uh,

Dodson: [interrupts] Is there anything in the history of the valley that you think is especially unfortunate?

Mulholland: I can't think of anything.

Boyer: oh.

Dodson: You think on the whole we've been pretty fortunate here, as a place to live?

Mulholland: Oh, there's no question about it and of course, the uh, uh, there's one thing I can remember. This not so many years ago. That uh, this valley before it was built up had wind storms and dust storms. I've seen this valley so colored with so much of a cloud of dust that over in Beverly Hills if you look over at the top of the mountains you see the dust way up in the air. Miles thick of dust. Silt. It's hard to realize. And that even happened after we had quite a few orange groves and the orange groves that we used to have had to build a wind break with Eucalyptus trees.



And uh, they, you know those wind breaks, were still, many of them were in place, if we didn't have them we'd still have these dust storms. And my, I remember, my cousins home was about as dust-proof as anyone's home could make. And uh, they, after a dust storm, they'd have to go through their house and it was all over the furniture and everything else. It's a fine silt that's in the ground here. In some areas.

Boyer: I think you still get it in sometimes you know, on windy days. You don't get as much though. But you still get it under your window sill and. . . [interrupted by Mr. Mulholland]

Mulholland: Oh, yes! That's right. There's a, I think it's, it's not sand. It's finer than a sand. It's real fine dust in it. It can get in most everyplace.

Dodson: I imagine that building up the valley has greatly cut down on that wind though, hasn't it?

Mulholland: Oh, sure. We don't have anything like that at all anymore compared to what then. Oh, you can imagine how much of a thing it was. It was just a solid dust cloud stickin up in the air high enough so you could see it on the other side of the mountains.

Boyer: It must have been really something.

Dodson: Was there any particular time of the year that that was most apt to happen?

Mulholland: Oh, in the summer. In the summertime. That was when the weather was the dryest.

Dodson: That was a greater problem than smog then? Do you feel that the smog is a fairly recent development?

Mulholland: Oh, yes. Yes. But you see that wasn't, except for the inconvenience, that dust wasn't a harmful thing. As far as I could tell anyway. I never heard of anyone breathing it or anything like that. But we did have that condition in those days which, because of the building up of the valley, is eliminated you might say.

Dodson: Can you think of some important things about the valley that we haven't asked about at all that you feel should be recorded for the future to know about?

Mulholland: Well, it was an interesting thing when they brought the inter-urban cars out here.

Boyer: Was that the red cars?

Mulholland: Yeah. And they opened up, that, that was one of the big movements in the valley without a doubt. See those cars went out to Canoga Park and then over to San Fernando and uh, this girl here used to ride on those cars, she lived on the west end of the valley, to the same area that I went to high school. That was in Los Angeles out on Broadway which, Broadway wasn't cut through. So you'd go down Broadway to where Sunset Boulevard is and in order to get into town when you get to

that you turn left and go around over until you get to main street. Even Spring street wasn't cut through. So you go down Broadway from the<sup>2</sup> north and you go to Sunset and then you turn off wherever Sunset ran into Broadway. There was a hill, and up on top of this hill was where this school was. There were two schools there. They started, when I started school there I was put in the Polytechnic High School. That was the first Polytechnic in the city.

Dodson: Is that the one they call Francis Polytechnic or do you remember?

Mulholland: No. This is long gone.

Dodson: Oh.

Mulholland: But they uh. . . [interrupted]

Dodson: I know there was an old one in Los Angeles and then the name was transferred to one out in the valley.

Mulholland: Yeah. There was one before that one. That was the one on this hill.

Dodson: Oh, I see.

Mulholland: On one side of the street was the Los Angeles High school. That was the first one we had. And that's the one that she went to.

Boyer: uh huh.

Mulholland: And uh, now she rode that red car from the west end of the valley downtown and back so you see that the, of course, I don't know just how long it took. She could tell you that I think. Cause her folks lived here and uh, I think she mentioned that in her article, maybe not. I think she said something about it. I think that the, probably was the biggest event, was when they started to subdivide this valley. We made Van Nuys and we made North Hollywood and we made Canoga Park which was Owens Mount in the old days. They were not in existence until they started to put these roadways and this airline came along out here. And we had these towns. I don't know whether it's good or bad but because, you know, something today is wrong. And that is, our little towns are slums.

Dodson: Well, there's a tendency for an old section to decay with the passage of time I guess.

Mulholland: And uh, the scene in Van Nuys is the fault of one man; that Van Nuys came to a standstill.

Dodson: And who was that?

Mulholland: Whitsett.

Dodson: Whitsett.

Mulholland: And that was because he drew a line where you could go and where you couldn't go and what you could do and what you couldn't do. You see, what should have happened. Instead of having Panorama City they should have come along from Van Nuys with bulldozers and gone like that, and then built their city.

Now it's questionable about whether they'll ever do that. If they don't, what are we gonna have? It's really, really is, this valley, we have a lot of nice homes and a lot of good places to live and we have the views from the mountains. But we have, the business section of Van Nuys, [inaudible]. The same way with North Hollywood.

Dodson: You feel both those business districts are going down hill?

Mulholland: Yes.

Dodson: You think that the coming in of these big shopping

[ The tape ended before Prof. Dodson could finish the sentence.  
Resume interview below.]

Dodson: Now, we were talking about the decaying of the business districts, Mr. Mulholland.

Mulholland: Well, you see, these downtown renewal projects that their talking about, they're not so much. The same thing has to be done to local communities.

Dodson: I'm wondering just how we can go about that? What we can do for them?

Mulholland: Uh, It's really, [long pause] I don't know just exactly what we can do, because it'll come back to transportation again. Uh, if we have a bus system, for instance, if we put a bus on a, put a new right-of-way for the bus on Ventura Boulevard and run a bus with infrequent stops, where those stops were we'd probably have a community

come up.

Dodson: You feel that the abandonment of the red car is a mistake?

Mulholland: No, no. They outlived themselves. The only way the red car could keep on its system was to put it on a separate roadway.

Dodson: So it wouldn't be interrupted by traffic all the time?

Mulholland: Yeah. You see, I used to get on the red car to go to the beach on Sundays. The uh, you didn't have anything in your way except the uh, maybe a chicken or something. You know, it was direct. But as soon as the uh, uh, automobile came in, that's what we used, cars. And the busses are better. They can go a lot of places that the red car, the red car could stay on one line. But you see, the freeway and the bus they beat the red car hands down. What, you see, they've been talkin about makin a railroad. You know what you can do with a bus? You can have double-decked, two double-decked busses and put them together with one driver.

Dodson: Yes. I've seen some to those in Europe.

Mulholland: And uh, that means if those things are [inaudible] you don't need a railroad. And it's gonna be a long, long time before we reach the point where we'd have more people riding on busses can get

on a double, uh, two of them fastened together. Get enough people on there. That's why I'm wondering, uh, what we're gonna add to this because, we're gonna have a stop and we bring the people to that stop somewhere and we take them downtown say at 40 miles an hour. That's so much faster than you can go downtown now. That little area where that bus stop is you're gonna have to move schools there, you're gonna have to move everything there.

Dodson: Course, that might be an argument for the diamond lane that people are so much against.

Mulholland: Well, the diamond, the objection to the diamond lane was of where, what they did. They took a lane which was already being used by everybody and told everybody to get off of it so they can run the bus down there. And then it's in the wrong lane for that purpose.

Dodson: Yes. The inner lane of a freeway couldn't have stops.

Mulholland: That was a mistake. It was not well planned. Now the line going out to El Monte, they could move that in that manner. Keep it for multiple passenger automobiles and sorts. That question, my idea of a bus, how old are the passengers? That's the way I look at it. You can make a rapid transit system on the freeway. Some of the freeways are such that you don't have to build anything else on them. On Ventura you'd probably have to put another lane on there and the same thing for the Golden State freeway.

You'd have to put a lane down both ways and the same thing, that's where, that's the thing that comes to my mind. What's it gonna do to the, already we know that markets, super-markets, they take away from Van Nuys. And so, if you had these stops along there with a rapid transit bus system, the stops five or six miles apart depending on the whatever [inaudible]. To keep the speed that you want will be the controlling factor in how far apart these stops are.

Boyer: So that would be, you think that would be a change that might happen or should happen in the valley?

Mulholland: Undoubtably the change that might happen.

Boyer: Is there anything else that we haven't asked about that you can think to add?

Mulholland: Well, the only thing that I, and I've already mentioned about the fact that I'm on this advisory board and I'm on the commission that is for the transporting of the elderly. We have a little start with that. You're familiar with those vans we have North Hollywood?

Boyer: Uh huh. But for the sake of the tape recording you might want to explain it. It's a little vague. It's a little van, right?

Mulholland: Yes, it's a little van.

Boyer: Like a Ford or a Dodge? It's equipped and it's [inaudible].



Mulholland: It's a little van with the place for two wheel-chairs and eight people. In the North Hollywood area they go on a regular route and every sixty-five minutes it's back exactly where it started from. This is financed by the government, this van. And it's for people who are fifty years and older, which is something I'm gonna be in awhile. [laughter] So the uh, [interruption: there is a voice in the background making a suggestion which is inaudible]

Mulholland: Huh? I don't know? [laughter] I was talkin about the little van?

Boyer: Uh huh.

Mulholland: Well, here in North Hollywood that's how they operate. The thing is, if you're able, actually they operate on the streets but I say they operate on a corridor. Follow me? Actually they operate on a corridor because when they go down that street they're going down a corridor and the people are capable of walking the two or three blocks it takes to get to where it is on that street they are supposed to walk. Then they take them anyplace. Course there is too many place people would be going normally. They take them to a shopping center, to the May Company and Sears, the playground. So they, they take people there for free. You can either have a free transit system or a partially free transit system. We only have a partially free transit system.

Dodson: Course we had that when the companies were only charging a quarter there.

Mulholland: Yeah. But these vans when they are operating will do this: if you are handicapped and you are in that zone then, the zone is not very wide because if they made the zone too wide they can't cover the ground. The thing is having a hard time existing because of lack of funds. It's on a trial basis and it's handicapped in that manner.

Dodson: It's paid for by the city is it?

Mulholland: No. That's government money.

Dodson: Oh, that's Federal then?

Mulholland: That's Federal. And it's operating under narrow supervision and the Councilmen they won't, uh, for instance, I can't ride any of those because I'm not on the route.

Boyer: Oh.

Mulholland: That's the crazy part about it all. A sixty year old person down there, able-bodied and all, who happens to live there down on the right street and he'll come by and pick them up somewhere down the street, he'll walk to the stop and then he can get a ride, and, but they do pick up the people who are handicapped along this corridor and they go over along this, people have to notify them the day before, 24 hour notice, but the same van will go off its route and go over there and pick them up and then go back on it's route. Then another thing I understand they're doing is when it comes to markets the driver, a very young driver, he'll help the people with their groceries.

Boyer: Well, that's nice.

Mulholland: And uh, that is something which, there is one of the reasons that the system is, uh, it doesn't take care of everybody and it does take care of the people that don't need taking care of. [laughter] It's a new thing and that's the thing I'm working on now is trying to get that started. And that's in our Governors, the transportation program. To supply transportation for those who do not have it. Because they're handicapped or because they don't have money or they don't have a car.

Boyer: Now that's what is new that's happening with the valley. I want to ask, uh, in the past, and since you've lived here for awhile, do you know of any important historical sites or buildings, or monuments in the valley that we might not know about? We know, of course, about the big, the big places.

Mulholland: I don't, uh, I can't think of any that you don't because you are the Historical Society here.

Boyer: Uh huh.

Mulholland: I think we've already lined up anything that I know about myself. After all, I'm not a native of the valley. My parents are not natives of the valley.

Dodson: I think you've been pretty closely associated with it's history after all you've been here quite a while and you were connected with the building of the aquaduct and all that. I think you'd qualify as a valley resident of a long term basis.

Mulholland: Well, that's possible but what I'm saying is that I've never had any knowledge with respect to its buildings because I know that there are other people who are well versed in that.

Boyer: Uh, who are some of these people who are well versed? Can you uh, should we speak to Mrs. Amy Mulholland?

Mulholland: Yes. I'd speak to her.

Boyer: Do you know of any other citizens in the valley that you think might have some information?

Mulholland: No, but this group that uh meets over here the Historical Society.

Dodson: The one at the Andreas Pico Adobe?

Mulholland: Yeah.

Dodson: That the one you're referring to?

Mulholland: Yes. They surely must. I know they're familiar with its past. They have a meeting down there every year. As to these other points I'm not, uh, I think they could tell you more.

Dodson: Well, do you have anything else then that you'd like to add Mr. Mulholland?

Mulholland: I wanted to thank you for doing what you're doing.

Dodson: Well, we thank you for the generosity you've shown us and the curtosy you've shown us in

letting us come here and spending all this time with us this afternoon. We're very grateful and we feel that the information you've given us is very valuable.

Mulholland: I appreciate the fact that you are [inaudible] because its part of life, part of me you might say. And it's given me a chance to say some things that were on my chest anyway so. Course, I wouldn't have had the opportunity otherwise.

Dodson: Well, I guess its profitable for all of us then. I'm glad it worked out that way. Well, thank you very much for your time.

Mulholland: Well, thank you.

You have been listening to an interview with Mr. William Mulholland, nephew of the the engineer William Mulholland who brought the water to the valley. The interview was conducted by Miss Paula Boyer, field deputy of the Los Angeles Valley College Historical Museum and by Dr. James L. Dodson, Curator of the Los Angeles Valley College Historical Museum. The date is February the 20th 1977.